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12 UNITED STATES DISTRICT COURT
13
14 NORTHERN DISTRICT OF CALIFORNIA
15

16 OYSTER OPTICS, LLC,

17 Plaintiff,

18 vs.

19 CIENA CORPORATION,

20 Defendant.
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CASE NO. 4:17-cv-05920-JSW

**DEFENDANT CIENA
CORPORATION'S RESPONSIVE
CLAIM CONSTRUCTION BRIEF**

Tutorial: May 21, 2020 at 10:00 am
Hearing: May 28, 2020 at 10:00 am
Judge: Hon. Jeffrey S. White

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Statutes

35 U.S.C. § 112, first paragraph 11-13

TABLE OF EXHIBITS¹

Exhibit	Document Description
A	Claim Construction Memorandum and Order dated Dec. 5, 2017 and entered as docket entry number 190 in <i>Oyster Optics, LLC v. Coriant America Inc.</i> , Case No. 2:16-cv-1302-JRG (E.D. Texas)
B	Order Denying Motion for Reconsideration dated March 2, 2018 and entered as docket entry number 304 in <i>Oyster Optics, LLC v. Coriant America Inc.</i> , Case No. 2:16-cv-1302-JRG (E.D. Texas).
C	Memorandum Opinion and Order dated June 21, 2018 and entered as docket entry number 615 in <i>Oyster Optics, LLC v. Coriant America Inc.</i> , Case No. 2:16-cv-1302-JRG (E.D. Texas)
D	U.S. Patent No. 7,620,327
E	U.S. Patent No. 8,374,511
F	U.S. Patent No. 8,913,898
G	Declaration of Michael Lebby, Ph. D., D. Eng., dated September 15, 2017
H	Non-Final Office Action mailed January 21, 2009 during the prosecution of U.S. Patent No. 7,620,327.
I	Response to Non-Final Office Action filed on February 17, 2009 during the prosecution of U.S. Patent No. 7,620,327
J	Non-Final Office Action mailed on June 26, 2013 during the prosecution of U.S. Patent No. 8,913,898.
K	Response to Non-Final Office Action filed on October 21, 2013 during the prosecution of U.S. Patent No. 8,913,898
L	Declaration of Richard Gitlin, SC.D. in support of Ciena's Preliminary Claim Constructions, dated February 10, 2020
M	Oyster Optics, Inc. (2002). Securing Fiber Optic Communications against Optical Tapping Methods.
N	USPTO's Issue Classification for U.S. Patent Application No. 10/188643, Issued as U.S. Patent No. 7,620,327
O	IPR2017-02173 Paper No. 10, Patent Owner's Preliminary Response
P	IPR2017-02173 Paper No. 12, PTAB Decision Denying Institution of Inter Partes Review
Q	IPR2018-00259 Paper No 10, Patent Owner's Preliminary Response
R	IPR2018-00259 Paper No 12, PTAB Decision Denying Institution of Inter Partes Review
S	IPR2018-00070 Paper No 12, Patent Owner's Preliminary Response
T	IPR2018-00070 Paper No. 14, PTAB Decision Institution of Inter Partes Review

¹ Exhibits A to K were filed with Oyster's Opening Claim Construction Brief. Dkt. 97. Exhibits M to T are being filed concurrently with Ciena's Responsive Claim Construction Brief.

U	IPR2018-00070 Paper No. 26, Patent Owner's Response
V	IPR2017-01870 Paper No. 8, Patent Owner's Preliminary Response
W	IPR2017-01881 Paper No. 11, PTAB Decision Institution of Inter Partes Review
X	IPR2017-01881 Paper No. 16, Patent Owner's Response
Y	IPR2017-01881 Paper No. 29, PTAB Final Written Decision
Z	IPR2018-00257 Paper No. 12, Patent Owner's Preliminary Response
AA	IPR2017-01871 Paper No. 7, Patent Owner's Preliminary Response
BB	IPR2017-01871 Paper No. 11, PTAB Decision Denying Institution of Inter Partes Review
CC	IPR2017-02146 Paper No. 10, Patent Owner's Preliminary Response
DD	IPR2017-01882 Paper No. 7, Patent Owner's Preliminary Response
EE	U.S. Patent No. 6,469,816
FF	(AEO) Leebby Sept. 6, 2017 Deposition
GG	Preliminary Amendment dated Feb. 5, 2013 during the prosecution of U.S. Patent No. 8,913,898.
HH	(AEO) Excerpts from Dr. Buck's Non-Infringement Report
II	(AEO) Oyster Optics, LLC's Second Supplemental Responses and Objections to Alcatel-Lucent USA, Inc.'s Third Set of Interrogatories (Nos. 11-13).

Defendant Ciena Corp. (“Ciena”) respectfully submits this brief in support of its proposed constructions for the disputed claim terms in U.S. Patent Nos. 7,620,327 (“the ’327 Patent”), 8,374,511 (“the ’511 Patent”) and 8,913,898 (“the ’898 Patent”) (collectively “the Asserted Patents”).²

I. INTRODUCTION

The parties’ *Markman* positions reflect vastly different approaches to claim construction. For its part, Ciena has faithfully applied the claim construction framework that the Federal Circuit established in *Phillips* and its progeny—by proposing definitions for the disputed terms that are firmly grounded in the full intrinsic record—the Asserted Patents’ claims, specifications, and prosecution histories, including Oyster’s statements during Inter Partes Review (“IPR”) of the Asserted Patents.

Oyster, in contrast, employed an “analysis with blinders on” methodology. Despite proclaiming that its proposed constructions are “fully consistent with the intrinsic record,” Oyster’s “support” for its proffered constructions are dozens of cites to *pre-IPR opinions* from Judge Gilstrap and Oyster’s expert, Dr. Lebby, neither of whom considered dispositive intrinsic evidence developed during IPR. Judge Gilstrap’s opinions and Dr. Lebby’s declaration are inherently incomplete and cannot support a proper construction. These anchors of Oyster’s argument do not consider Oyster’s limiting and definitional statements made during IPR—statements that now form an intrinsic record wholly ignored by Oyster in its proposed constructions. In short, Oyster’s proposed constructions must be rejected because they, like the Judge Gilstrap and Dr. Lebby opinions that they heavily rely upon, fail to consider limiting and definitional statements made during prosecution and during IPR proceedings, not to mention rulings on the meaning of claim terms.

This Court stayed this case, noting that the PTAB “rulings may also clarify claim construction positions” and that “statements made by [Oyster] during IPR proceedings may be used to support a finding of prosecution disclaimer during claim construction proceedings.” Dkt.

² The Asserted Patents share a common specification. When any of these patents is cited, it should be understood as a citation to the same disclosure in the other patents.

059 at 2-3, n.2. The IPRs did in fact clarify many claim construction positions by including express definitions and disclaimers of claim scope. Oyster now seeks to rewrite history and the Asserted Patents' claims by ignoring the IPRs entirely. Oyster's improper attempt to construe terms one way to secure validity and another way to seek infringement results in legally flawed and deficient proposals. Only Ciena's proposed constructions properly assess claim scope in light of the complete intrinsic record and should, therefore, be adopted.

II. THE ASSERTED PATENTS

Contrary to Oyster's assertions, the Asserted Patents are not broadly directed to "transporting information by modulating light waves transmitted and received across transparent optical fibers." Dkt. 97 at 2:13-15. The concept of transporting information by modulating light waves was known well before the filing date of the Asserted Patents. Ex. E at 1:23-49; Ex. L at 6:15-7:23. And there is no support for Oyster's attorney argument that claimed systems "demonstrate[] a significant advancement over the state of the art . . ." Dkt. 97 at 2:16-18. Nor is there support for Oyster's attempt to recast these patents as inventing optical communications.

Instead, the Asserted Patents are directed to specific solutions to detect and protect against optical taps. Ex. E at 4:8-6:48. At the time of the invention, existing "systems [had] the disadvantage that the fiber can be easily tapped and [were] not secure." *Id.* at 1:50-51. Therefore, the invention is described as "providing secure optical data transmission over optical fiber" by using "tapping detection capabilities." *Id.* at 2:21-27; *see also* Ex. L at 7:25-8:3.

The Background of the Asserted Patents frames the problem as the vulnerability of optical fiber to security breaches through optical taps: "Existing amplitude modulated systems have the disadvantage that the fiber can be easily tapped and are not secure." Ex. E at 1:50-51. Thus, the purpose of the "invention is to provide a transceiver card for providing secure optical data transmission over optical fiber" and to provide "tapping detection capabilities." *Id.* at 2:21-27.

As Dr. Gitlin explains, the patents purport to "solve the problem of easily tapped fibers by using a transceiver that 'operates in a phase-modulated mode.'" Ex. L at 8:13-17 (citing Ex. F at 4:44-52). The patents do this by using "phase-modulated signals," which "have the advantage that breach detection by the energy level detector works more effectively, since the amplitude of

1 the optical signal is constant and thus a drop in the optical signal level is more easily detected.”
 2 *Id.* Consistent with Dr. Gitlin’s explanation, during Inter Partes Review (“IPR”) before the
 3 United States Patent and Trademark Office (“USPTO”), Oyster explained that “[t]he energy level
 4 detector 33 monitors the incoming light energy . . . to indicate a potential optical tap, tampering,
 5 or other degradation of the optical signal.” Ex. O at 17; *see also* Ex. E at 6:15-19.

6 The Asserted Patents also purport to utilize “advances in semiconductor and optical
 7 component packaging” to provide “energy level detector parts along with the optical transmitter
 8 and receiver components . . . all on one card compatible with most existing box dimensions.” Ex.
 9 E at 3:7-16. This allegedly “permits for the removal of existing optical transmission cards to be
 10 easily replaced by the enhanced security cards.” *Id.* at 6:35-41.

11 **III. CLAIM CONSTRUCTION PRINCIPLES**

12 “The purpose of claim construction is to determine the meaning and scope of the patent
 13 claims asserted to be infringed.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d
 14 1351, 1360 (Fed. Cir. 2008). Claim terms are generally given “their ordinary and customary
 15 meaning”—i.e., “the meaning that the terms would have to a person of ordinary skill in the art at
 16 the time of the invention” after reading the claim term in the context of the claim and the entire
 17 specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). In
 18 determining the ordinary and customary meaning, the claim language “provide[s] substantial
 19 guidance as to the meaning of particular claim terms.” *Id.* at 1314. The scope of the claims must
 20 always be “determined and confirmed with a full understanding of what the inventors actually
 21 invented and intended to envelop with the claim.” *Id.* at 1316.

22 In addition to the claims and the specification, the prosecution history may be used “to
 23 provide[] evidence of how the PTO and the inventor understood the patent.” *Id.* at 1317. “Any
 24 explanation, elaboration, or qualification presented by the inventor during patent examination is
 25 relevant, for the role of claim construction is to ‘capture the scope of the actual invention’ that is
 26 disclosed, described and patented.” *Fenner Inv., Ltd. v. Cellco P’ship*, 778 F.3d 1320, 1323 (Fed.
 27 Cir. 2015). In other words, prosecution disclaimer “narrows the meaning of the claim” and
 28 applies to both amendments and arguments made during “pre-issuance prosecution” and “IPR

proceedings before the PTO.” *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359-60 (Fed. Cir. 2017). The claims, specification, and prosecution history together constitute the “intrinsic evidence” that forms the primary basis for claim construction. *Phillips*, 415 F.3d at 1312-17.

Courts may also consider extrinsic evidence, such as technical dictionaries and expert testimony, “if the court deems it helpful in determining the ‘true meaning of language used in the patent claims’” but it may not be used to vary or contradict the intrinsic evidence. *Id.* at 1318.

IV. DISPUTED CLAIM TERMS

A. “the optical signals” (’327 patent claims 1, 14, 25, 36)

Oyster’s Proposed Construction	Ciena’s Proposed Construction
“the optical data signals received on the fiber input from the second optical fiber”	“transmitting optical signals” is the antecedent basis for “the optical signals,” <i>Otherwise</i> Indefinite

Ciena’s proposed construction provides the plain and ordinary meaning of “the optical signals” in light of the intrinsic record and is identical to the Patent Trial and Appeal Board’s (“PTAB”) recent construction of this term during IPR proceedings.³ Ex. P at 7, 11-17; *see also* Ex. R at 7, 11-18. In contrast, Oyster ignores the plain claim language, the prosecution history, and the PTAB’s detailed analysis and ultimate rejection of Oyster’s proposed construction (including its reliance on Judge Gilstrap and Dr. Lebby’s opinions). Oyster seeks to improperly rewrite the clear claim language so that “the optical signals” no longer refer to the *transmitted* optical signals, but, instead, refers to different signals relying on extrinsic evidence from Dr. Lebby. Not only can extrinsic evidence not be used to rewrite clear claim language, Dr. Lebby’s declaration should be given no weight because it failed to consider the full intrinsic record—namely the recent IPRs. In sum, Oyster’s efforts are legally impermissible and contradict the clear intrinsic record. The Court should reject Oyster’s proposal and adopt Ciena’s properly grounded proposed construction.

³ “In many cases, the claim construction will be the same under the *Phillips* and BRI standards.” *In re CSB-Sys. Int’l, Inc.*, 832 F.3d 1335, 1341 (Fed. Cir. 2016). *See also Facebook, Inc. v. Pragmatus AV, LLC*, 582 Fed. Appx. 864, 869 (Fed. Cir. 2014) (“The broadest reasonable interpretation of a claim term may be the same as or broader than the construction of a term under the *Phillips* standard. But it cannot be narrower.”).

1 **1. Ciena’s Proposed Construction is Confirmed by the Full Intrinsic**
 2 **Record**

3 “Claim terms based on an antecedent basis relationship carry the same meaning
 4 throughout the claims.” *Sensor Elec. Tech., Inc. v. Bolb, Inc.*, 2019 WL 4645338, at *17 (N.D.
 5 Cal. Sept. 24, 2019) (internal citations omitted). The dispute here revolves around the proper
 6 antecedent basis for “the optical signals.” Ciena’s proposed construction correctly answers this
 7 question based on the clear and unambiguous intrinsic evidence demonstrating that only the
 8 transmitter limitation provides the antecedent basis for “the optical signals.”

9 The claims support Ciena’s proposed construction. Claim 1 is illustrative:

- 10 1. A transceiver card . . . comprising:
 11 a transmitter for . . . **transmitting optical signals** for
 12 telecommunication as a function of the input data;
 13 . . .
 14 an energy level detector optically connected between the receiver
 15 and the fiber input to measure an energy level of **the optical signals**,
 16 wherein the energy level detector includes a plurality of thresholds.

17 Ex. D at cl. 1 (disputed language in red). The transmitter introduces the claimed “optical signals”
 18 and provides the antecedent basis for the single appearance of “the optical signals” elsewhere in
 19 the independent claims. No other claim element introduces “optical signals.” As a result, “the
 20 optical signals” clearly and unambiguously refers to optical signals transmitted by the transmitter
 21 on the transceiver card. *Id.*; see also Ex. P at 7, 11-17; Ex. R at 7, 11-18.

22 The prosecution history confirms only Ciena’s proposed construction. During
 23 prosecution, and in response to an obviousness rejection, Oyster *simultaneously* (i) amended the
 24 transmitter limitation by adding “optical signals” and (ii) amended the energy level detector
 25 limitation by adding that it measures “an energy level of *the optical signals*” as shown by
 26 Applicants’ underlining:

27 a transmitter for transmitting data over the first optical fiber, the transmitter having a
 28 laser, and a modulator, and a controller receiving input data and controlling the modulator as a
 function of the input data, the transmitter **transmitting optical signals** for telecommunication as a
 function of the input data;

an energy level detector optically connected between the receiver and the fiber input to measure an energy level of the optical signals, wherein the energy level detector includes a plurality of thresholds.

Ex. I at 2, 4, 5, 7 (red boxes added for emphasis). In that same Office Action Response, Oyster explained the amendment making it eminently clear that the transmitted “optical signals” are the same as “the optical signals” measured by the energy level detector. Specifically, Applicants explained that the optical signals measured by the energy level detector are “the *transmitted* optical signals”:

Without prejudice to a continuation application, however, applicants have amended the claims to recite “a transmitter for transmitting data over the first optical fiber, the transmitter having a laser, ~~and a modulator, and a controller receiving input data and controlling the modulator as a function of the input data, the transmitter~~ transmitting optical signals for telecommunication as a function of the input data” and “an energy level detector” to measure an energy level of the transmitted optical signals. See claims 22 and 34.

Id. at 10 (Applicants used underlining to indicate additions and strikethrough to indicate deletion) (red boxes added for emphasis); *see also* Ex. N (showing that prosecuted claim 22 issued as claim 1 and prosecuted claim 34 issued as claim 14). Applicants’ own statements thus demonstrate that the energy level detector measures the energy of the transmitted optical signals. This intrinsic evidence on its own should end the inquiry.

The PTAB reviewed this prosecution history and, in its *expert* opinion,⁴ reached the *same* conclusion:

[A]pplicants introduced the language “the transmitter transmitting optical signals” and the reference to “the optical signals” at the *same time and in a complementary manner*, and further specifically explained the added language “the optical signals” as “the transmitted optical signals.” *Both the claim language on its face as well as the prosecution history are plain and unambiguous that “the optical signals” . . . refers to optical signals transmitted by the recited transmitter on the transceiver card. This is the only reasonable conclusion supported by the intrinsic evidence.*

Ex. P at 13. “To conclude differently would undermine the clear notice provided by the claims,

⁴ As this Court has explained, IPR proceedings “provide the Court with the PTAB’s expert opinion on the claims at issue.” *DSS Tech. Mgmt., Inc. v. Apple, Inc.*, 2015 WL 1967878, at *3 (N.D. Cal. May 1, 2015); *see also Robert Bosch Healthcare Sys., Inc. v. Cardiocom, LLC*, 2014 WL 3107447, at *4 (N.D. Cal. July 3, 2014).

1 as well as the prosecution history, to the public with regard to the scope of coverage of these
 2 claims.” *Id.* As the PTAB acknowledged, Courts “cannot engage in a rewriting of the claims.”
 3 *Id.* (citing *SRAM Corp. v. AD-II Engineering Inc.*, 465 F.3d 1351, 1359 (Fed. Cir. 2006)).

4 Ciena’s construction is fully consistent with both the PTAB’s construction and the entire
 5 intrinsic record, Oyster’s is not. *Aylus Networks*, 856 F.3d at 1361 (IPR proceedings are part of
 6 the intrinsic record).

7 **2. Oyster’s Misleading Criticisms Ignore the Prosecution History**

8 Oyster’s criticisms of Ciena’s proposal rely upon red herring positions previously rejected
 9 by the PTAB. First, Oyster argues that Ciena’s proposed construction is confusing and subject to
 10 multiple interpretations. Dkt. 97 at 8:28-9:7. Not so. Ciena’s proposed construction
 11 unambiguously identifies “the optical signals” as the optical signals transmitted by the recited
 12 transmitter on the transceiver card.

13 Second, Oyster argues a POSITA would never *interpret* the claims to require “the optical
 14 signals” to be the optical signals transmitted by the transmitter because that would result “in a
 15 (possibly endless) loop.” Dkt. 97 at 9:8-13; *see also id.* at 10-11. The PTAB correctly
 16 recognized Oyster’s argument as a red herring explaining: “[T]he issue is not whether the
 17 challenged claims require ‘loop-back’ such that the transmitted signals are the same as the
 18 received signals, but what is the antecedent basis in these claims for ‘the optical signals.’” Ex. P
 19 at 14. The antecedent basis for “the optical signals” as claimed is not only clear, but it is express.
 20 This Court should decline Oyster’s invitation to rewrite the claims because courts “are powerless
 21 to rewrite the claims and must construe the language of the claim at issue based on the words
 22 used.” *SRAM Corp.*, 465 F.3d at 1359; *see also K-2 Corp. v. Solomon S.A.*, 191 F.3d 1356, 1364
 23 (Fed. Cir. 1999) (“Courts do not rewrite claims; instead, we give effect to the terms chosen by the
 24 patentee.”).

25 Oyster relies solely upon Dr. Lebby’s outdated declaration to support this endless loop
 26 argument. This extrinsic evidence should be given no weight because it fails to consider the full
 27 intrinsic record. *See, e.g., Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1577-78 (Fed.
 28 Cir. 1995) (expert testimony that did not consider *inter alia* the prosecution history provided only

1 “conclusory legal opinions”); *Phillips*, 415 F.3d at 1319 (Fed. Cir. 2005) (extrinsic evidence “is
2 unlikely to result in a reliable interpretation of patent claim scope unless considered in the context
3 of the intrinsic evidence”). In any event, Dr. Gitlin, who unlike Dr. Lebby gave full consideration
4 to the prosecution history including the IPRs, explained that a POSITA would interpret “the
5 optical signals” as referring to optical signals transmitted by the claimed transmitter on the
6 transceiver card based on a plain reading of the claims. Ex. L at 12:12-13.

7 Third, Oyster ignores the relevant prosecution history discussed above and argues that the
8 optical signals transmitted by the transmitter cannot be the optical signals measured by the energy
9 level detector because the signals transmitted from the transmitter are for “telecommunications
10 purposes,” and not for diagnostic purposes. Dkt. 97 at 10-11 (referring to the title, abstract, and
11 field of invention’s use of the word “telecommunications” and citing the Darcie prior art
12 reference). Again, this same argument was raised by Oyster during IPR and rejected. Ex. P at 14,
13 16. In short, the claims already address Oyster’s artificial distinction by expressly claiming the
14 optical signals are “*for telecommunication.*” See, e.g., Ex. D at cl. 1. The PTAB correctly
15 reached this conclusion because what the prosecution history “explains is that while the prior art
16 reference Darcie is for reading a diagnostic signal,” the “optical signals expressly recited as
17 transmitted by the transmitter are data communication signals (i.e., not the diagnostic signals such
18 as those in Darcie distinguished by the Applicants).” Ex. P at 16.

19 Fourth, Oyster wrongly asserts that Ciena’s proposed construction would result in
20 inoperability of the claimed invention. Dkt. 97 at 7:22-25. Oyster provides no basis for this
21 misguided, bald contention and its citation to Ex. A provides no guidance. In any event, Oyster’s
22 own expert, Dr. Lebby, belied Oyster’s argument by testifying that “there are situations in the
23 industry where an optical signal would leave a transceiver card and enter that same card” on
24 another fiber. Ex. FF at 98:19-99:4. Recognizing this, the PTAB rejected Oyster’s argument and
25 found that the specified location of the energy level detector “does not preclude the energy level
26 detector from measuring the energy level of the optical signals transmitted by the recited
27 transceiver.” Ex. P at 17.

28 Lastly, Oyster wrongly argues that Ciena’s proposed construction excludes all

embodiments in the specification. Dkt. 97 at 10:7-12; Ex. G at ¶ 90 (providing no objective basis for this assertion). To the contrary, Ciena’s proposed construction is consistent with every disclosed embodiment. To set the stage, Oyster criticizes its patents for not showing connections in the figures to clarify the source of the received optical signals. Dkt. 97 at 10:19-20; Ex. O at 29 (the optical fibers are “unconnected and unterminated”). Thus, there is no dispute that the Asserted Patents are silent as to what is at the other end of the fibers—there is neither a description of a “loop back setup” nor a description of receiving “the optical signals” from a different transmitter. But, unlike Oyster’s proposed construction, Ciena’s construction is fully consistent with the specification as well as the Oyster’s arguments during original prosecution. *See, e.g.*, Ex. D at 4:25-5:19; *see also id.* at 1:23-30 (describing transmitting and receiving optical signals where “[b]oth the transmitter and the receiver typically are *located on the backplane of a single card*”) (emphasis added); Ex. I at 2, 10.

3. Oyster’s Proposed Construction Lacks Support in The Intrinsic Record

Oyster asks to Court to rewrite the claims so “the optical signals” as claimed refer to data received by the second optical fiber and not the claimed “optical signals” transmitted by the transmitter. Dkt. 97 at 8:14-17.⁵ Setting aside the fact that Courts cannot rewrite claims (*SRAM*, 465 F.3d at 1359), Oyster’s proposed construction ignores express claim language and prosecution history so it cannot be correct. It is thus not surprising that the PTAB rejected Oyster’s proposed construction and Judge Gilstrap’s prior opinion upon which Oyster now relies. Ex. P at 15.

Oyster’s proposed construction is further flawed because it injects ambiguity into the claims by introducing a new term “optical *data* signals” that has no antecedent basis in the claims. Confronted with a clear intrinsic record, Oyster implausibly argues that “‘the optical signals’ are the optical data signals *originating* over the second optical fiber.” Dkt. 97 at 8:14-16. This argument makes little sense because a fiber cannot “originate” a signal, only a modulator or light

⁵ Oyster knew how to distinguish the transmitted optical signals from the received optical signals when drafting claims, which further undermines Oyster’s attempted rewrite of the ’327 patent claims. *See, e.g.*, Ex. F at claim 14 (“a transmitter” for generating “a **first** optical signal,” “a receiver configured to receive a **second** optical signal”).

1 source can. Ex. D at 1:23-25; 4:25-38. And, as discussed above, the only intrinsic support for a
 2 “source” of an optical signal is the claimed transmitter on the same card as the claimed receiver
 3 and energy level detector. Ex. D at 4:25-5:19; Ex. I at 2, 10; Ex. P at 13. Thus, it comes as no
 4 surprise that Oyster cites to only Dr. Lebby. Dkt. 97 at 8:14-16; *see also id.* at 12:17-21. Indeed,
 5 Oyster relies upon Dr. Lebby seventeen times for this single claim term while ignoring the actual
 6 intrinsic record.

7 Not only should Dr. Lebby’s conclusory testimony be rejected as purely extrinsic and
 8 contradictory to the intrinsic record, but it is wholly unreliable because he failed to consider the
 9 *full* intrinsic record. Ex. G at ¶83. *Phillips*, 415 F.3d at 1319 (“extrinsic evidence,” i.e., Dr.
 10 Lebby’s Declaration, “is unlikely to result in a reliable interpretation of patent claim scope unless
 11 considered in the context of the intrinsic evidence”). The Court should reject Dr. Lebby’s
 12 unsupported and conclusory assertions because they contradict plain claim language and the
 13 prosecution history, which includes an express finding by the PTAB regarding the appropriate
 14 construction for this term. *Shire Dev., LLC v. Watson Pharm., Inc.*, 787 F.3d 1359, 1365 (Fed.
 15 Cir. 2015) (discounting “expert testimony that is clearly at odds with the claim construction
 16 mandated by the claims themselves, the written description, and the prosecution history”).

17 Oyster goes on to argue that “a POSITA would understand that the patent teaches that the
 18 transceiver is not receiving the same signal it is sending out,” again citing only disfavored and
 19 outdated extrinsic evidence from Dr. Lebby. Dkt. 97 at 10:13-23. This is a repeated error in
 20 Oyster’s brief, blindly citing to a POSITA rather than analyzing and citing the claims and
 21 intrinsic record. According to Dr. Lebby, “the optical signals” must be “transmitted by *another*
 22 *device* at the other end of the second optical fiber, outside the transceiver card.” Ex. G at ¶ 84
 23 (emphasis added); *see also id.* at ¶ 80. Not only does Dr. Lebby fail to provide intrinsic support
 24 for this assertion beyond his conclusory assertions about optical systems in general, he also
 25 testified during deposition that the industry uses networks “where an optical signal would leave a
 26 transceiver card and enter that same card” on another fiber. Ex. FF at 98:19-99:4.

27 In sum, Oyster’s attempt to rewrite the clear language of the claims must be rejected
 28 because courts do not rewrite claims (*SRAM*, 465 F.3d at 1359) and Oyster’s proposed rewrite

lacks any intrinsic support.

4. Alternatively, “the optical signals” is Indefinite

To the extent the Court does not construe the terms consistent with Ciena’s proposal, the claims are indefinite and cannot be corrected through claim construction to refer to *different* optical signals from an undisclosed source, as this would improperly rewrite the claims. *SRAM*, 465 F.3d at 1359; *K-2 Corp.*, 191 F.3d at 1364. A claim is indefinite when either its language “might mean several different things and no informed and confident choice is available among the contending definitions,” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 911 fn. 8 (2014), or the intrinsic evidence fails to “provide objective boundaries” as to the scope of the claim meaning, *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014). As discussed above, those skilled in the art would understand “the optical signals” to refer to the transmitted optical signals based on the plain claim language and the prosecution history. Absent that understanding, the claimed optical signals would not inform a skilled artisan about the scope of the invention. Ex. L at 10:26-11:1.⁶

B. “receiver” (’327 patent claims 1, 14, 25, 36; ’511 patent claims 1, 9)

Oyster’s Proposed Construction	Ciena’s Proposed Construction
’327 and ’511 patents: No construction necessary (“receiver”) ’898 patent: “receiver without a demodulator”	“receiver without a demodulator” *The parties agree that “receiver” in the ’898 patent means “receiver without a demodulator”

The issue here is whether an admitted disclaimer for lack of enablement during prosecution of one patent (the ’898 patent) should be imputed to two earlier issued patents (the ’327 and ’511 patents). The Court should resolve this dispute in Ciena’s favor for two distinct reasons: (1) Oyster concedes that the Asserted Patents’ specification does not enable a receiver *with* a demodulator so the claims should be construed to comply with 35 U.S.C. § 112, first

⁶ The *Trover* case cited by Oyster is inapposite. Dkt. 97 at 12:10-25. In that case, “it [was] clear what the disputed claim language covers,” so the Court declined to find the claims indefinite because “there is an obvious and correctable error in the claim, the construction of which *is not subject to reasonable debate.*” *Trover Grp., Inc. v. Dedicated Micros USA*, 2015 WL 1263358, at *8–9 (E.D. Tex. Mar. 19, 2015) (citing *CBT Flint Partners, LLC v. Return Path, Inc.*, 654 F.3d 1353, 1358 (Fed. Cir. 2011)).

1 paragraph; and (2) Oyster's admitted disavowal during the prosecution of the '898 patent can be
2 imputed to the earlier issued '327 and '511 patents.

3 During prosecution of the '898 patent, Oyster conceded that the Asserted Patents'
4 specification does not enable a receiver with a demodulator. Ex. J at 3; Ex. K at 2, 4, 6–8.
5 Specifically, Applicants presented multiple claims directed to a transceiver card with “a receiver
6 having a demodulator.” Ex. GG at 3, 5-7. The USPTO rejected the claims for failure to comply
7 with 35 U.S.C. § 112, first paragraph, because the Asserted Patents' specification did not disclose
8 a receiver having a demodulator “in such a way to enable a one skilled in the art to which it
9 pertains, or with which it is most nearly connected, to make and/or use the invention.” Ex. J at 3.
10 Applicants' acquiesced to the USPTO's finding that the Asserted Patents' specification does not
11 enable a receiver with a demodulator by amending the claims without argument during
12 prosecution of the '898 patent. Ex. J at 3; Ex. K at 2, 4, 6–8. As a result of this clear and
13 unambiguous disavowal of claim scope, Oyster concedes that “receiver” means “a receiver
14 without a demodulator” for the '898 patent. Dkt. 97 at 13:12-19; *UCB, Inc. v. Yeda Research &*
15 *Dev. Co., Ltd.*, 837 F.3d 1256, 1260-61 (Fed. Cir. 2016).

16 Because the Asserted Patents share the same specification, it logically follows that a
17 receiver with a demodulator is not enabled for any of the Asserted Patents. *Biogen Idec, Inc. v.*
18 *GlaxoSmithKline LLC*, 713 F.3d 1090, 1095–97 (Fed. Cir. 2013) (affirming district court that
19 “properly limited the scope of [a] claim term” based on an admitted lack of enablement).
20 Specifically, the claimed “receiver”⁷ was never intended to cover a receiver with a demodulator
21 because that concept, by Oyster's own admission, is not enabled by the specification. *Abbott*
22 *Labs v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009) (“[T]he claims cannot enlarge what is
23 patented beyond what the inventor has described as the invention.”). Thus, the claims in the '327
24 and '511 patents should be construed consistent with Ciena's proposed construction to comply
25 with 35 U.S.C. § 112, first paragraph. *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d
26 1323, 1332 (Fed. Cir. 2007) (“Claim construction should not, of course, be blind to validity

27 ⁷ Oyster presents no argument that the “receiver” in the '327 and '511 patents is different from
28 the receiver in the '898 patent. Nor could it since it always refers to the same element in the
specification. See, e.g., Ex D. at Figs. 2-3.

1 issues”).

2 Moreover, Oyster’s contention that its admitted disavowal does not affect the scope of the
3 claimed “receiver” in the ’327 and ’511 patents (Dkt. 97 at 13:20-15:3) is incorrect because a
4 party is “not entitled to a claim construction divorced from the context of the written description
5 and prosecution history.” *Nystrom v. TREX Co., Inc.*, 424 F.3d 1136, 1144-45 (Fed. Cir. 2005).
6 Here, the disavowal concerns the scope of invention enabled by the specification, not an
7 amendment or argument made to overcome prior art. Thus, the Court should adopt Ciena’s
8 proposed construction because it is the only construction tied to the prosecution history and
9 enabled by the specification.⁸

10 The Court should adopt Ciena’s proposed construction for another reason—namely
11 binding precedent not previously considered demonstrates Ciena’s proposed construction
12 applying the disavowal to all Asserted Patents is correct. Specifically, Oyster and Judge Gilstrap
13 rely upon the same authority to limit the disavowal to the ’898 patent. *See, e.g.*, Dkt. 97 at 14:6-
14 10; Ex. A at 34. This precedent, including the *Elkay* case forming the basis for most of that legal
15 authority, is inapposite because it stands for the proposition that the prosecution history of an
16 earlier issued patent applies to a later issued patent, not the issue presented here. As the Northern
17 District previously explained, *Elkay* did not address the issue of “apply[ing] the prosecution
18 history of a later patent to an *earlier issued* patent.” *Cybersource Corp. v. Retail Decisions, Inc.*,
19 2008 WL 4543045, at *4 (N.D. Cal. Oct. 10, 2008) (emphasis original).

20 Binding Federal Circuit precedent, not considered by Oyster and not analyzed by Judge
21 Gilstrap, instructs that the prosecution history of a later patent ***should be considered*** in construing
22 a term common to an earlier patent.⁹ *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335,

23 ⁸ To the extent that Oyster argues that receivers with demodulators were well-known in the art at
24 the time of the invention, it would not matter since “patentees frequently surrender more through
25 amendment than may have been absolutely necessary . . . to overcome rejections under § 112.”
Ajinomoto Co., Inc. v. Int’l Trade Comm’n, 932 F.3d 1342, 1351 (Fed. Cir. 2019).

26 ⁹ *Microsoft Corp. v. Multi-Tech Sys.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) also supports Ciena’s
27 argument although Judge Gilstrap erroneously distinguished it as relating to sibling applications
28 and not binding on other familial relationships. Ex. A at 34-35. In *Microsoft*, the court noted that
“any statement of the patentee in the prosecution of a *related* application as to the scope of the
invention” is relevant to claim construction for an earlier issued patent that shared a common
specification. *Microsoft*, 357 F. 3d at 1350.

1343 (Fed. Cir. 2015) (“A statement made during prosecution of related patents may be properly considered in construing a term common to those patents, *regardless of whether the statement pre- or post-dates the issuance of the particular patent at issue*”); *see also Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1369 (Fed. Cir. 2016); *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1306-07 (Fed. Cir. 2007).

The Federal Circuit’s holding in *Verizon* is illustrative. There, the panel rejected the precise argument Oyster makes here and confirmed that “it is not unsound to apply the same interpretation to the patent-in-suit, even though that patent *had already issued*.” *Verizon*, 503 F.3d at 1307 (emphasis added). This is because “a statement made by the patentee during prosecution history of a patent *in the same family as the patent-in-suit* can operate as a disclaimer.” *Id.* at 1306 (emphasis added). More recently, the Federal Circuit re-confirmed “that statements made in related, later-prosecuted U.S. patents [e.g., the 898 patent] may inform the meaning of earlier issued claims [e.g., the claims of the ’327 and ’511 patents].” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1312 (Fed. Cir. 2014). Thus, “the patentee’s statements made during the prosecution of a later patent [are] relevant to an earlier issued patent that share[s] a common specification.” *Id.*

The undisputed disclaimer made during the prosecution of the ’898 patent applies equally to the ’327 and ’511 patents for the two separate reasons discussed above. Judge Gilstrap failed to analyze binding Federal Circuit precedent instructing that the prosecution history of a later patent *should be considered* in construing a term common to an earlier patent in conducting his analysis. Separately, the non-contested disclaimer concerns the scope of the enablement and this disclaimer relates equally to all three patents—no patent enables or discloses a receiver with a demodulator.

**C. “receiver configured . . . to convert the second optical signal to output data”
(’898 patent – cl. 1, 14)**

Oyster’s Proposed Construction	Ciena’s Proposed Construction
“receiver” is a “receiver without a demodulator” as set forth above. Otherwise, no construction necessary.	“a receiver that converts the second optical signal from optical to electronic form to recover the data carried by the second optical signal”

1 The dispute here pertains to what it means for the claimed receiver to “convert” an optical
 2 signal to “output data.” Ciena’s proposed construction provides the plain and ordinary meaning
 3 of the phrase and is fully consistent with the patent’s intrinsic record, including recent IPRs.
 4 Oyster, by recasting this dispute as being redundant and by focusing on the term “receiver” in a
 5 vacuum, ignores the actual dispute about the claimed *functionality* of the receiver. In doing so,
 6 Oyster proposes nothing to address the receiver’s functionality. Rather, Oyster urges no
 7 construction relying solely on a separate dispute in the Texas litigation (including Dr. Lebby’s
 8 stale declaration) and again burying its head with regard to disclaimers made during recent IPRs.

9 The intrinsic record supports Ciena’s proposed construction. The specification describes a
 10 receiver “converting” optical signals in two places. First, the Background of the ’898 patent
 11 describes a receiver with a “photodiode to *convert the optical signals back into the electronic*
 12 *data stream.*” Ex. F at 1:32-35 (emphasis added). At the receiver, “the optical signals either
 13 produce an electric output at the photodiode or they do not. As a result, an output electronic data
 14 stream of zeros and ones is generated.” *Id.* at 1:42-46. Second, the Detailed Description of the
 15 Invention explains that the “optical receiver 32,” which corresponds to the claimed receiver,
 16 “*converts the optical signal from optical to electronic form to recover the electronic data stream*
 17 *34*” *Id.* at 5:2-5 (emphasis added). The specification is clear that “output data” is an
 18 electronic form of data recovered from the second optical signal.

19 Likewise, Oyster’s intrinsic statements during IPR support Ciena’s construction.
 20 Specifically, Oyster argued that the receiver “converts the optical signal to *electronic form to*
 21 *recover the electronic data stream,*” which is precisely Ciena’s proposed construction. Ex. S at
 22 18 (emphasis added); Ex. U at 11 (same); Ex. Z at 21 (same); Ex. CC at 46 (arguing that
 23 characterizing optical signals as electronic output data renders the “‘converting’ step
 24 meaningless”). The PTAB was persuaded by Oyster’s arguments, finding that the receiver
 25 “converts the optical signal to electronic form to yield [the] received electronic data stream.” Ex.
 26 Y at 8.

27 Oyster criticizes Ciena’s proposed construction for “seek[ing] to limit this term by
 28 importing features from the specification, including the requirement of conversion to ‘electronic

form’ and the requirement of ‘recover[ing]’ data in addition to ‘convert[ing].’ Dkt. 97 at 15:15-17. Oyster’s criticism is misplaced. Ciena does not seek to limit the invention to preferred embodiments. Instead, Ciena’s proposal properly parrots IPR disclaimers that Oyster now seeks to avoid. Ex. S at 18 (Oyster contending that the receiver “converts the optical signal to *electronic form to recover the electronic data stream*”); *see also* Ex. U at 11; Ex. Z at 21; Ex. CC at 46. Oyster must now live with the scope it surrendered during IPR, as the law prohibits Oyster “from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Power Integrations, Inc. v. ON Semiconductor Corp.*, 396 F. Supp. 3d 851, 862-63 (N.D. Cal. 2019); *see also Aylus Networks*, 856 F.3d 1353 at 1361 (“statements made by a patent owner during an IPR proceeding can be considered during claim construction and relied upon to support a finding of prosecution disclaimer.”). Ciena’s proposed construction is fully consistent with the patents’ claims, specification and Oyster’s disclaimer during IPR and should thus be adopted.

D. “energy level detector including a threshold”/“energy level detector includes a plurality of thresholds” (’327 patent claims 1, 14, 25; ’898 patent claims 1, 14)

Oyster’s Proposed Construction	Ciena’s Proposed Construction
“an energy level detector’ means” “a device to measure optical power.” The remainder of the disputed phrase requires no further construction.	“a single energy level detector on a transceiver card and including a reference voltage for comparison to the energy level of [the optical signals / the second optical signal]” / “a single energy level detector on a transceiver card and including reference voltages for comparison to the energy level of [the optical signals / the second optical signal]”

Again, Ciena’s proposed construction comports with positions staked out by Oyster during IPR, while Oyster’s construction once again clings to the Texas findings that pre-existed and thus lack the benefit of Oyster’s IPR positions. Dkt. 97 at 16:23-17:24. While the parties agree that the energy level detector is *on* the transceiver card, the parties have two disputes, which were addressed during IPR as accounted for by Ciena and ignored by Oyster.¹⁰

1. A Single Energy Level Detector (Disputed)

During IPR, Oyster sought to overcome prior art with *multiple* detectors by arguing that

¹⁰ The express claim language and specification support Ciena’s proposed construction. *See* Ex. F at 5:60-6:2; 6:14-17; FIG. 3. Ciena focuses on Oyster’s IPR disclaimer, which Oyster ignores.

the “correct interpretation” of the claimed “energy level detector” is “consistent with Fig. 3 of the ’898 patent” and that “it is *entirely appropriate to construe claim 1* to require that a *single* detector measure an optical signal and include a plurality of thresholds.” Ex. S at 36-37 (emphasis added); *see also* Ex. U at 42-43. Oyster went on to argue that the petition’s “reliance on a plurality of detectors, each with a single threshold, fails to show the claimed *single* energy level detector having a plurality of thresholds.” Ex. Q at 40; *see also* Ex. S at 35. There can be no doubt that Oyster has surrendered any claim scope beyond the energy level detector being a “single” energy level detector. *See, e.g.*, Dkt. 59 at n 2 (“statements made by a patent owner during IPR proceedings may be used to support a finding of prosecution disclaimer during claim construction proceedings”); *see also Aylus Networks*, 856 F.3d at 1361. And Oyster’s case law argument that “a” means “one or more” should be rejected as it ignores Oyster’s clear and unmistakable disavowal during multiple IPRs. Dkt. 97 at 17: 7-15.

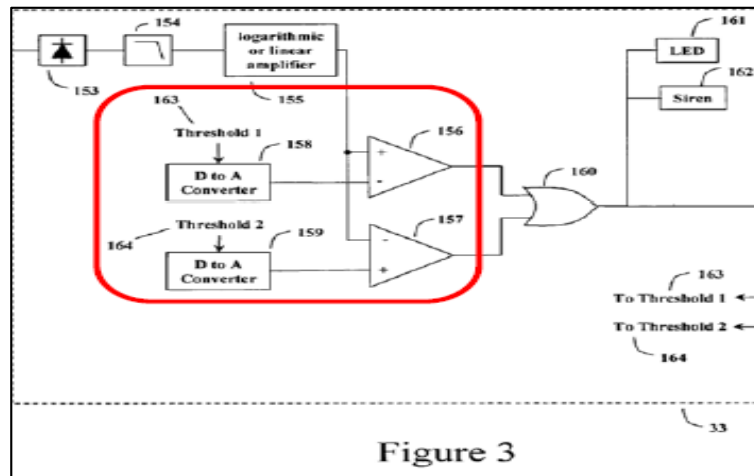
2. The Energy Level Detector Is On a Transceiver Card (Agreed)

Oyster does not dispute that the energy level detector is on the transceiver card. Dkt. 97 at 16:23-17:24. And it appears to concede this particular IPR disavowal. Therefore, based on Oyster’s own surrender and the PTAB’s reliance on Oyster’s statements,¹¹ the energy level detector must be “on” the transceiver card. *See Aylus Networks*, 856 F.3d at 1361.

¹¹ During IPR Oyster distinguished prior art for allegedly “not include[ing] every claimed feature of the ’327 patent claims *on a single transceiver ‘card.’*” Ex. O at 35 (emphasis added); *see also* Ex. Z at 43 (making same argument for the ’898 patent). Oyster distinguished prior art as purportedly being “silent on whether the modules/circuits . . . are arranged *on a common ‘transceiver card.’*” Ex. O at 36 (emphasis added). Oyster also argued that the asserted claims “require an ‘energy level detector’ *on the claimed ‘transceiver card’*” and the prior art “fails to disclose these features arranged *on a common ‘transceiver card.’*” Ex. Z at 45 (emphasis added); *see also* Ex. O at 37. In denying institution of IPR, the PTAB explained that “[a]ll three claims 1, 14, and 25 [of the ’327 patent] require . . . an energy level detector *on the same card as the transmitter.*” Ex. BB at 8 (emphasis added).

3. The Energy Level Detector Includes A Reference Voltage for Comparison to the Energy Level of the Optical Signal(s) (Disputed)

The claimed energy level detector includes “a threshold” or “a plurality of thresholds.” Ciena’s proposed construction aligns with the plain meaning of the claims by clarifying that the thresholds are reference voltages for comparison to the energy level of optical signals consistent with Oyster’s statements during IPR. Oyster criticizes Ciena’s proposed construction for “go[ing] far beyond the plain meaning of the term ‘threshold.’” Dkt. 97 at 17:16-24. Oyster’s representations during IPR once again refute Oyster’s argument. To overcome prior art, Oyster argued that “[t]he *correct interpretation* is consistent with Fig. 3 of the ’898 patent, which depicts *multiple thresholds (163, 164)* being compared to a measured energy level (output of element 155).” Ex. S at 36 (emphasis added); *see also* Ex. U at 42-43. Oyster provided the following demonstrative to explain its interpretation and directed the PTAB’s attention to the Ex. F at 5:60-6:2; 6:14-17. *Id.*



Id. (Oyster’s annotation of Ex. F at Fig. 3). The portions of the specification cited by Oyster confirm Ciena’s construction:

The electrical signal . . . is compared to *reference voltages by one or more comparators*. As shown in FIG. 3, comparator 156 will transition from a low to high output when the voltage output from the logarithmic or linear amplifier 155 exceeds *the reference voltage* established by the digital to analog (D to A) converter 158. . . . *One or more thresholds 163 and 164 may be established to provide reference levels for comparison to determine one or more alarm states.*

Ex. F at 5:60-6:2; 6:14-17 (emphasis added). Only Ciena’s proposed construction confirms that including one or more thresholds means including one or more reference voltages for comparison to the energy level of optical signal(s), as described in the patent’s specification and as argued by Oyster to avoid prior art during IPR proceedings. Oyster’s proposed construction provides no meaning whatsoever for the claimed threshold and should thus be rejected. Ciena’s proposed construction, which is consistent with the intrinsic record, should be adopted.

E. “phase modulate” / “phase modulator” (’327 patent claims 3, 16, 27, 37; ’511 patent claim 9; ’898 patent claim 3, 17)

Oyster’s Proposed Construction	Ciena’s Proposed Construction
“alter the phase of light to create an optical signal having a phase that is representative of data. Use of phase modulation excludes use of amplitude modulation.”	“alter the phase of light while keeping the amplitude of the light constant to create an optical signal having a phase that is representative of data.”

As can be seen in the above proposed constructions, the parties agree on much regarding this phrase. The only dispute is whether the phase modulate terms require keeping the amplitude of the light constant.

Oyster overstates the importance of Judge Gilstrap’s construction, essentially urging this Court to forego its own analysis and instead adopt another court’s construction that is allegedly based on “over a dozen pieces of intrinsic and extrinsic evidence in the form of expert declarations and depositions.” Dkt. 97 at 18:7-11. Not only did Oyster fail to cite this purported extrinsic evidence in the Local Patent Rule 4.3 Statement, but its attorney argument is fundamentally incorrect in contending that Ciena’s proposal would “exclude the preferred embodiment and virtually every phase modulation system ever known to man.” *Id.* at 18:10-11. This is the critical argument in assessing whether Oyster or Ciena’s proposed construction is correct—and Oyster’s unsupported contention is plainly wrong.

First, and critically, Ciena’s proposal is consistent with the preferred embodiment. The Asserted Patents expressly describe an advantage of the “present invention” as a phase-modulated mode where breach detection by the energy level detector is more effective because “the *amplitude of the optical signal is constant*” making “a drop in the optical signal level more easily detected.” Ex. F at 4:48-52; *see also* Dkt. 97 at 15:26-27 (phase modulation is “preferably used

1 in the invention.”). “[W]here the specification describes ‘the present invention’ as having a
 2 feature, that representation may disavow contrary embodiments.” *Techtronic Indus. Co. Ltd. v.*
 3 *Int’l Trade Comm’n*, 944 F.3d 901, 907 (Fed. Cir. 2019) (internal citations omitted).

4 Oyster concedes that “the ’898 patent discusses a phase-modulated mode in which
 5 amplitude of the optical signal is *constant*.” Dkt. 97 at 18:28-19:3 (internal citations omitted).
 6 Oyster tries to explain away this disclosure by pointing to the patent’s disclosure of alternatively
 7 using “conventional amplitude-modulated transmitters and receivers.” *Id.* (internal citations
 8 omitted). This argument should be rejected for two reasons. First, the specification, including the
 9 portion cited by Oyster, describes the conventional amplitude forms of modulation as being less
 10 desirable. Ex. D at 1:45-46, 3:4-8, 4:39-47, 5:6-14, 6:31-41. So Oyster’s proposed construction,
 11 not Ciena’s, actually contradicts the preferred embodiment (which operates in a phase-modulated
 12 mode with constant amplitude). *Id.* at 4:39-47, 5:6-14. Second, Oyster points to “conventional
 13 amplitude modulated transmitters and receivers” and argues that the patent does not require
 14 amplitude to be kept constant. Dkt. 97 at 18:25-19:3. But that is irrelevant since Oyster’s
 15 proposed construction excludes *amplitude modulation*. *Id.* at 18:14-16. This paradox in Oyster’s
 16 argument demonstrates the core flaw in its argument—Oyster points to amplitude modulators as
 17 an example of non-constant amplitude but its own construction expressly excludes the use of
 18 amplitude modulation.

19 Oyster’s argument that Ciena’s construction would exclude both amplitude and phase
 20 modulators is nonsensical. *Id.* at 18:18-19; 20:1-7. The background of the Asserted Patents
 21 frames the problem to be solved as the vulnerability of optical fiber to security breaches:
 22 “Existing amplitude modulated systems have the *disadvantage* that the fiber can be easily tapped
 23 and are not secure.” Ex. F at 1:52-53. As Dr. Gitlin explained in his declaration, “[t]he Asserted
 24 Patents solve the problem of easily tapped fibers by using a transceiver that ‘operates in a phase-
 25 modulated mode’ because ‘the phase-modulated signals have the advantage that breach detection
 26 by the energy level detector work more effectively, *since the amplitude of the optical signal is*
 27 ***constant and thus a drop in the optical signal level is more easily detected.***” Ex. L at 8:13-17
 28 (citing Ex. F at 4:44-52; emphasis original).

Beyond citing directly to the intrinsic record to confirm his understanding, Dr. Gitlin identified an extrinsic source, a contemporaneous white paper authored by the original patentee, which further confirmed his understanding of the express intrinsic record. That white paper establishes that the original patentee “believed that nefarious intruders ‘wish to extract as much information for as long as possible . . . with the goal of *not* being detected or caught.’” *Id.* at 8:18-9:5 (citing Ex. M at 2). As such, the patentee described its patented solution as leveraging a patented phase modulation format to allow for immediate tap detection:

[D]ue to the nature of the optical signal sent using Oyster Optics’ *patented secure phase modulation technologies*, attempts to tap Oyster-protected fiber . . . become immediately known to the network operator

Ex. M at 11. This patented phase modulation format is expressly described as excluding commercial phase modulation techniques, consistent with Oyster’s argument that the claimed phase modulation technique is narrow. Dkt. 97 at 18:7-11. Specifically, the white paper explains that the patented phase modulation format is different from commercially available products and will not function with equipment for amplitude modulated signals.

[T]he *light transmitting the data is in a patented secure phase modulated format different from any commercially available products*. Because of the format of the light, Oyster Optics’ technologies are therefore able to provide an extremely precise and sensitive tap detection system, which ***would not function with existing common equipment utilizing insecure amplitude or intensity modulated signals.***

Ex. M at 14 (emphasis added). Reading the express language of this disclosure, Dr. Gitlin reasonably concluded that this “paper is describing the problem and solution [] described in the Asserted Patents. Namely, utilizing a type of phase modulation where the amplitude *remains constant* and detecting taps by identifying drops in the signal’s amplitude. *See, e.g.*, Ex. D at 5:6-14 (an amplitude drop may indicate a tap).” Ex. L at 9:11-14.

In this same vein, “[t]he Asserted Patents emphasize that a modulation format having a *constant* amplitude prevents an intruder from being able to use a simple photodetector to intercept communications by tapping the optical fiber.” Ex. L at 10:11-13. Thus, “[a] POSITA reading the Asserted Patents would have understood that the *constant* amplitude characteristic of the phase

1 modulated signals is important to making the signals secure while in transit.” *Id.* at 10:8-10.
 2 Ciena’s proposed construction is consistent with this vitally important characteristic of the
 3 claimed invention while Oyster’s is not.

4 With this understanding in mind, the Asserted Patents explanation that “[i]f the amplitude
 5 drops during monitoring. . . the detector 33 provides an alert . . . to indicate a drop or increase in
 6 the optical energy level” makes eminent sense. Ex. D at 5:6-14. The purpose of the energy level
 7 detector is to monitor for changes in optical energy level, e.g., to monitor for changes in optical
 8 signal amplitude, to provide an alert when the optical signal level changes. *Id.* As Dr. Gitlin
 9 explained, these “disclosures tell a POSITA that allowing the signal’s amplitude to vary with the
 10 data would expose the data to photodiode optical taps, frustrating the invention’s ability to
 11 provide secure, phase modulated optical data transmission.” Ex. L at 9:18-10:22.

12 Oyster’s argument that Ciena’s proposed construction is inconsistent with claim 14 and
 13 precludes the amplitude in a phase-modulated signal from *ever* dropping is incorrect and
 14 miscomprehends the express purpose of this invention. Dkt. 97 at 18:18-19:3. Ciena does not
 15 dispute, and has never disputed, that if there is a tap the amplitude will change. This is the same
 16 scenario that existed prior to the invention, as explained above. To be clear, Ciena’s proposed
 17 construction precludes the transmitter from intentionally varying the signal’s amplitude during
 18 normal operations, which is precisely the inventive aspect described by the Asserted Patents, a
 19 phase modulation technique where the amplitude *remains constant* and taps are detected by
 20 identifying drops in the signal’s amplitude. Ex. L at 9:18-10:22; Ex. D at 4:39-47, 5:6-14.

21 Oyster’s strained use of a “topically related” extrinsic patent¹² fails for the same reasons
 22 as discussed above. Dkt. 97 at 19:4-23 (citing Ex. EE at Fig. 1). Nevertheless, the ’816 patent
 23 explains that “[a]mplitude modulated signals,” which “require only a small amount of energy be
 24 tapped” to acquire “a tapped electronic data stream.” Ex. EE at 38-43. Thus, the ’816 patent’s
 25 detector 32 “monitors the light energy in the fiber 20” and “[i]f the amplitude drops, most likely
 26 from a tap, the detector alerts the receiver and can, for example, sound an alarm or alert network

27 ¹² “Extrinsic evidence may not be used to contradict claim meaning that is unambiguous in light
 28 of the intrinsic evidence.” *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356,
 1369 (Fed. Cir. 2018).

1 maintenance personnel.” *Id.* at 4:37-43; *see also id.* 3:27-29 (“monitoring the optical fiber for a
 2 reduction in the amplitude of the phase-modulated signal”). Yet again, Oyster’s argument that
 3 Ciena’s construction is inconsistent with the specification is wrong and the ’816 patent actually
 4 demonstrates that Ciena’s proposed construction is correct. Dkt. 97 at 19:20-23.

5 Oyster’s final argument, citing to out-of-context snippets from depositions either not
 6 available or not fully available to Ciena and from experts that Ciena did not hire and had no
 7 chance to examine, suffers from the same flaws as Oyster’s arguments above. *Id.* 97 at 20:1-22.
 8 The testimony excised by Oyster is not surprising, as the patent itself states that other commercial
 9 modulators existed prior to the Asserted Patents’ inventions, but those modulators did not hold
 10 amplitude constant while still detecting taps by identifying drops in the signal’s amplitude. Ex. F
 11 at 4:44-52; 5:12-19. That experts would testify that commercial embodiments prior to the
 12 invention of the Asserted Patents would not hold amplitude constant is not surprising, as this is
 13 the very problem solved by the invention. Indeed, an original patentee explained this precisely in
 14 its contemporaneous white paper, which explained that the “light transmitting the data is in a
 15 patented secure *phase modulated format different from any commercially available products*”
 16 and this “format of the light . . . *would not function* with existing common equipment utilizing
 17 insecure amplitude or intensity modulated signals.” Ex. M at 14 (emphasis added). Nevertheless,
 18 Oyster overstates its position, because Dr. Buck actually explained that “there are known types of
 19 ‘continuous phase modulation’ which maintain a constant amplitude. For example, phase
 20 modulation using a single lithium niobate waveguide can be used to phase modulate with a
 21 constant amplitude.” Ex. HH at ¶ 48.

22 In sum, the idea of encoding information in a light beam’s amplitude was well known.
 23 Ex. D at 1:15-25, 1:40-43; Ex. L at 7-8-28. Both Ciena’s and Oyster’s proposed construction
 24 exclude the use of amplitude modulation meaning that the amplitude does not carry data
 25 information. Oyster’s argument against Ciena’s proposed construction, however, seeks to expand
 26 the scope of the invention by excluding the requirement that the amplitude of light be kept
 27 constant. By taking this position, Oyster’s proposal wrongly eviscerates the problem and solution
 28 expressly described and claimed in the Asserted Patents. The problem with prior commercial

modulators was that they allowed the signal's amplitude to vary with the data and this would expose the data to photodiode optical taps, frustrating the invention's goal of providing secure, phase modulated optical data transmission. Ex. L at 9:18-10:22. Oyster's proposal should be rejected because it ignores the inventive purpose of the Asserted Patents, while Ciena's proposal should be accepted because it properly provides meaning to the patented phase modulation technique.

F. "a transmitter having a laser, a modulator, and a controller" ('327 patent – cl. 1, 14, 25, 36; '898 patent – cl. 1, 14)

Oyster's Proposed Construction	Ciena's Proposed Construction
No construction necessary: "a transmitter having a laser, a modulator, and a controller"	"A transmitter having a laser, a modulator, and a controller located within the transmitter."

The dispute here concerns whether the claims require the laser, modulator, and controller to be located within the transmitter. The plain language of the claims as well as the rest of the intrinsic record, including IPR disclaimers, confirm Ciena's proposed construction is correct. Oyster's no construction necessary approach is yet another attempt to dodge its IPR disclaimers.

First, the claims' plain use of the word "having" confirms the recited components are located within the transmitter. Ex. D at cl. 1, 14, 25, 36; Ex. F at cl. 1, 14.

Second, the specification confirms this plain meaning. The entire specification focuses on enabling easy replacement of existing cards with enhanced security cards, which is both responsive to the prior art deficiency the patents identify and repeatedly set forth as the object of the invention. *See, e.g.*, Ex. F at 2:26-29 (citing need to have a swappable transceiver card); 3:9-18 (providing a swappable transceiver card having "the OTDR and energy level detector parts *along with the optical transmitter and receiver components . . . all on one card* compatible with most existing box dimensions"); 6:36-42 (same); 4:30-43 (placing relevant components on the transmitter); Fig. 2 (same). Thus, the specification confirms that the claimed components are within the transmitter.¹³

¹³ Oyster's discovery responses in the Texas litigation further confirm Ciena's proposed construction is correct. Ex. II at 9 ("The use of a transmitter *containing* this combination ['a laser, a modulator, and a controller. . .'] for transmitting phase-modulated signals is also novel.").

1 Third, Oyster fails to address its IPR statements confirming “having” means “located
 2 within” as Oyster disavowed any possible broader scope for the disputed phrase. During IPR,
 3 Oyster argued that a transmitter “*having*” a component means a transmitter with that component
 4 *placed on it*. Ex. U at 41 (Petitioners did not address “the requirement of *placing a laser on the*
 5 *claimed ‘transceiver card’*”). Oyster also argued that a transmitter “*having*” a component
 6 excludes an *external* component that is *separate from* or not *part of* the transmitter. Ex. V at 20-
 7 21 (The prior art’s “transmitter does not include a light source” because the prior art’s laser “input
 8 light” is “from an *external* source” so it not “part of” the prior art’s transmitter, rather it is
 9 “separate from” the transmitter); *see also id.* at 22, Ex. X at 34-36 (same); Ex. AA at 23-25 (The
 10 prior art’s transmitter “excludes a light source” because it “is *external* to the transmitter”); Ex.
 11 DD at 26-27 (same). The PTAB agreed with Oyster’s IPR statements and explained that *having*
 12 means the components are “*within the transmitter itself.*” Ex. BB at 8. The PTAB then denied
 13 institution because the petition did “not sufficiently account[] for [a] laser *within* the transmitter
 14” *Id.* at 21, 23, 33. In another institution decision, the PTAB clarified:

15 A pertinent dictionary definition of “having” is “to hold, include,
 16 or contain as a part or whole <the car *has* power brakes> <April
 17 *has* 30 days>.” *Webster’s Tenth Collegiate Dictionary* 533 (1998)
 [] (emphases in original). Therefore, with this definition, a
 transmitter having a laser would hold, include, or *contain* the laser.

18 Ex. T at 17-18. Lastly, consistent with the parties’ agreement that the preamble is limiting, the
 19 PTAB found that the transmitter having a laser, a modulator, and a controller “*must also be on the*
 20 *transceiver card.*” Ex. W at 23. In other words, Oyster’s statements to the PTAB and the
 21 PTAB’s interpretation of Oyster’s statements confirm that the various components are within the
 22 transceiver card because they are on the card.

23 Thus, the intrinsic record thus fully supports’ Ciena’s proposed construction and squarely
 24 contradicts Oyster’s arguments that no construction is necessary, no disavowal or lexicography
 25 exists, and Ciena’s construction improperly narrows the disputed phrase. Dkt. 97 at 21:12-22:11.

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